Early Designs on DhRs-1 ḣəʔsnəʔam-Marpole

Steve Daniel
Department of Anthropology, University of British Columbia

This paper provides an overview of my ongoing PhD project which centers on the original archaeological investigations conducted at ḣəʔsnəʔam from 1949 to 1958 by Dr. Charles E. Borden of UBC. The ḣəʔsnəʔam-Marpole site (DhRs-1) itself is situated on the North Arm of the Fraser River near its mouth in southwestern Vancouver, British Columbia. As a riverine, oceanside location both when occupied and contemporarily, the notion of water is a fundamental component. Most clearly as an essential resource and means of access and cultural connection, but also one heavily influenced then and now internally by water courses – many of which no longer exist. The methodology of my PhD research is archival in nature – and designed not necessarily to recommend new excavations but to capitalize more fully on past archaeological work done there and the wealth of data generated at the site. To date, this evidence has been uncompiled and underutilized, and these records have only been briefly reported in summary form with minimal publication. Despite the limited reporting and data typology, it has served to generate now widespread theoretical frameworks for Northwest Coast cultures. Ultimately, my work will re-evaluate these frameworks across a much broader data set. Thus far, I have accessed a wide variety of records as a supplement to Borden’s data now housed in the LOA Archives. In addition, I will be examining Dr. Borden’s own UBC office records and those of other researchers at the DhRs-1 site since 1927. This project has flowed directly out of my involvement in all four Musqueam-UBC Field Schools (2007-10) and which suggested that this work could be of great benefit to the Musqueam community on whose traditional territory ḣəʔsnəʔam remains. The goal is to complete the final project report that Borden never finished and to increase our mutual understanding of this important Musqueam settlement.
Riverine Island Settlements in Coast Salish Territory: Sacred and Conspicuous Occupations
Patrick Morgan Ritchie
Department of Anthropology, University of British Columbia

Low-lying riverine islands are exposed to regular and catastrophic flooding making them highly sensitive indicators of climatic conditions and long-term human-environment interactions. They are also hybrid places that blur divisions between land and water, social and physical, ritual and mundane, and the living and dead. In spite of, or perhaps because of the inherent hybridity and risk, riverine islands have been made, used, and occupied across the globe for millennia. The use of riverine islands over many thousands of years has resulted in a complex entanglement between people and their fluvial environments. This study presents a review of riverine island settlements across the major rivers of the Northwest Coast, with an emphasis on river islands in the lower 200 km of the Fraser River and its tributaries, the traditional home of Coast Salish peoples. River islands were highly conspicuous and important places within these fluid social landscapes. Archaeological data suggest that Coast Salish people began establishing plank house settlements on islands in the lower Fraser River around 800 years ago, in already densely occupied areas indicating they were extensions of existing social spheres. Several hundred years later, underground houses were also built on these islands, suggesting year-round occupation and greater permanence. Riverine islands were used during periods of increased warfare and social conflict, including into the 1800s when they reflect responses to increasing Euro-Canadian trade and presence, and also changing climatic conditions. Historic records and oral narratives agree that among the people living on the last inhabited islands in the Fraser Valley were wealthy leaders, powerful shaman, respected warriors, and slaves.
Subjects of a Despot: Humans and the Nile from a New Perspective
Thomas Schneider

Department of Classical, Near Eastern and Religious Studies, University of British Columbia

According to a famous statement by Herodotus (Histories, 2.5.1), Egypt is the “gift of the Nile.” Princeton historian Robert Tignor says about this statement in his 2010 Short History of Egypt, that it is not the least of the truisms of the Greek historian, understanding it as a reference to the abundance and fecundity of Egypt, and to the Nile as its ultimate cause. Not only is this understanding a misinterpretation of Herodotus, it is also part of an older scholarly narrative that sees the Nile as an object of human activity. This lecture will describe a paradigm shift which, in alignment with a recent “river turn” in historiography and the ascription of agency to rivers, sees the Nile as Egypt’s “true despot” and the country as a social cage for its inhabitants. Recent archaeological work has shown to what extent a changing riverscape and variable Nile floods affected settlement and population patterns, agricultural productivity, the economy, and the distribution of power. The Nile must also be seen as the fundamental driver of Egyptian history in its role in the spread of diseases and the level of mortality. Other water events such as torrential rains and flooding are also obvious in their impact on Egyptian civilization, and can be ascertained by archaeological and historical studies. They contribute to the need to forge a new historiographical narrative that perceives the Nile and water as the subject and agent of Egyptian civilization.
**Foundations on Running Water: The Archaeology of Water and Settlement**

Extensive volcaniclastic toolstone sources (re)discovered along waterways in Sts’ailes territory, southwestern British Columbia

Rhy McMillan\(^1,2,3\) Morgan Ritchie\(^2,3\) and Jamie Cutts\(^4\)

\(^1\)Department of Chemistry, Vrije Universiteit Brussel
\(^2\) Sts’ailes First Nation Xwilexmet (Rights and Titles Department)
\(^3\)Department of Anthropology, University of British Columbia
\(^4\)Department of Earth, Ocean, and Atmospheric Sciences, University of British Columbia

Indigenous peoples of the Pacific Northwest relied on fine-grained geologic materials for a range of tool technologies. However, very little is known about most of the contexts from which archaeological toolstone materials originated and how they were collected. We are addressing this challenge via detailed examinations of one of the most complex toolstone contexts yet identified in the region, the Harrison Lake Formation in Sts’ailes territory (British Columbia). Since 2018, we have conducted systematic fieldwork and geochemical investigations to establish the nature and distribution of toolstone-grade outcrops throughout the territory. Results indicate that people extensively quarried these silicified volcaniclastic (tuffaceous) toolstones from numerous sites along Sts’ailes waterways over a long period of time. To document this, we investigate how this toolstone material was used at an ancestral Sts’ailes village for the specialized production of large bifaces. Geochemical analyses undertaken on this assemblage indicate the producers were likely quarrying the majority of materials from these previously undocumented local toolstone deposits rather than obtaining the materials from exotic sources. We suggest that these bifaces were intended for distribution across the Salish Sea, possibly in the context of ceremonial exchanges.
New Approaches for Investigating Human-Whale Relationships and the Use of Coastal Resources

Camilla Speller

Department of Anthropology, University of British Columbia

Humans have been interacting with baleen whales for more than ten thousand years, first through the opportunistic use of stranded or drift carcases and later through active hunting. Whale meat and blubber were important sources of food, fat, and fuel, while their bones, teeth and baleen were important sources of raw materials. In the absence of comprehensive historical records, archaeological data may hold the key to deciphering the complex and dynamic relationship between humans and whales, including the timing, technological developments and ecological consequences of whale exploitation. Whale bone in archaeological sites is quickly broken down into unidentifiable fragments. The larger the whale, the less bone is transported from shore to settlement, decreasing the likelihood of finding diagnostic pieces of the skeleton, and identifying either the species or number of animals taken. Through a series of case studies, this presentation will highlight how biomolecular methods have contributed to our understanding of whale exploitation and marine ecosystems, from the late Paleolithic until the industrial whaling period, revealing new information about the human exploitation of coastal ecosystems, as well as long-term changes in whale ecology and distribution.
Across the Caribbean Sea: Reconstructing the Interactions of Indigenous Islanders using Ancient Mitochondrial DNA of Agouti (Dasyprocta sp.)

Sophie Rabinow

Department of Archaeology, Simon Fraser University

Mobility made up the fabric of daily life for Indigenous Caribbean groups, from the large-scale migration events thought to have populated the islands starting around 4000 BC, to the continuous small-scale interactions interspersed in between. However, many questions remain as to the origins and paths of dispersal of human groups. The agouti (Dasyprocta sp.) was one of the many commensal species humans translocated to the Caribbean from South America as early as AD 100/400. Their widespread archaeological presence in the Lesser Antilles, makes them valuable proxies for reconstructing the interactions of Indigenous Islanders. This paper presents the application of a genetic commensal model to agouti, a novel proxy offering an ideal opportunity for commensal research. Mitochondrial DNA (mtDNA) was extracted from archaeological agouti bones from seven sites across the Lesser Antilles. Of 30 tested, 26 specimens (Sabazan (n = 5) and Grand Bay (n = 19) on Carriacou, Macabou (n = 1) on Martinique, and BK77 Grand Case (n = 1) on Saint Martin) were successfully amplified. Results show that archaeological sequences belong to Dasyprocta leporina and relate to a single continental clade, likely from northern South America or Trinidad. A systematic review of zooarchaeological records suggests the agouti may have been disseminated from the northern Lesser Antilles. This paper provides a new framework for conceptualizing the interactions of Indigenous islanders and emphasizes the potential of the commensal model for the global study of ancient translocations and island interactions.
Water Histories of Ancient Yemen and the American West
Michael Harrower
Associate Professor of Archaeology, Johns Hopkins University

Water and its histories reveal deep similarities and pivotal differences among human societies. Michael Harrower will present highlights of his recent book that compares and contrasts water histories of ancient Yemen (3200 BC - 600 AD) and the American West (2000 BC - AD 1950). Arabs have long served as an anthropological archetype of nomadic and tribal societies, while American frontier settlers have similar longevity as a historical stereotype of the mythical West and Western civilization. In both instances, agriculture focused not in water-rich regions where rain-fed agriculture was possible, but in hyper-arid areas where attention focused on geographies of water scarcity and the supposed need to colonize water-scarce areas rationalized massive state-constructed irrigation schemes that helped generate state identities, religiosities and sovereignties.
Flows across the Mediterranean: Sustainable Water Management in Roman cities (Ostia and Volubilis)

Mark A. Locicero
Department of Classical, Near Eastern and Religious Studies, University of British Columbia

Roman cities were places where water management systems explored and exploited new forms of water supply, usage, and drainage. The diversity and complexity of these systems has only begun to be identified and fully appreciated. This paper traces the hydraulic systems of the Roman cities of Ostia (modern Italy) and Volubilis (modern Morocco). In our current world, the interaction between water and cities is investigated within the framework of sustainable resource usage. Such research on the sustainability of modern water usage habits has demonstrated that hydraulic systems are inherently connected with the environment and wider socio-economic trends. This paper presents the results of an attempt to place this modern, diversified approach to water systems in dialogue with the rich archaeological evidence from Ostia and Volubilis. Moving beyond initial comparisons, this paper draws out the archaeological evidence for hydraulic systems to identify local and sometimes personal relationships to water. It also throws relief on pre-Roman water habits, demonstrating how local and Mediterranean-wide trends of water usage interacted. Finally, we examine the sustainability of these water habits, and posit what they can tell us about longer-term relationships with water in the ancient Mediterranean world.
Exploring the Survival of Middle Pleistocene Hominins at a Levantine Desert Refugium: Recent Results from the AMAPP Excavations in Azraq, Jordan.

Jeremy A. Beller

Department of Archaeology, Simon Fraser University

Water was as much a vital resource for our hominin ancestors as it is for us today. Recent research has demonstrated that hominins utilized a series of inter-connected basins that filled as paleo-lakes for dispersals out of Africa during the Middle Pleistocene. These paleo-hydrological corridors allowed migrating hominins to pass through the Arabian Peninsula and into the Levant. At the end of one corridor is the endorheic Azraq Basin in modern Jordan, which contains the Druze and Shishan marshlands as part of its former paleo-lake. Recent archaeological excavations at the Paleolithic site of Shishan Marsh 1 have uncovered several artifact-bearing layers that date to the late Middle Pleistocene (260-120 kya). An ecological assessment of sediments and speleothems indicate that warm and arid conditions were increasing in the Azraq Basin and the paleo-lake at its center rapidly receded during this period. Hominins and other fauna living in the region were forced to contract around the perennial spring-fed marshlands. The procurement patterns and protein residues on lithic remains suggest similar strategies of survival to those modern hunter-gatherers under water-stressed conditions. In this respect, the marshlands operated as an oasis complex or refugium in an otherwise inhospitable desert environment. Furthermore, this research demonstrates the important role water played in both times of increased and decreased mobility for hominins.
Invisible Water – The Local Effects of Hydropolitics and Unsustainable Water Management on Archaeological Heritage in Iraqi Kurdistan

Steve Renette
Department of Classical, Near Eastern and Religious Studies, University of British Columbia

The provinces of Kurdistan in present-day Iraq and Iran are known for their dramatic mountainous landscape, fertile plains, and lush settings with ample water supply. In a region characterized by dry environments where water is increasingly becoming a contested resource, the ample water sources of Kurdistan form a stark contrast. 19th and 20th century travelers through the region provide lavish images of waterfalls, wide streams, and marshy valleys. Even the geology of the mountain ranges provides testimony to millennia of erosion from waterflow that carved out narrow passes. However, anyone visiting these valleys today would be easily mistaken to think that water is scarcely available. Dam construction, water bottling facilities, irrigation, and large-scale industry have dried up streams and lowered the groundwater, essentially making local waterflows invisible. Climate change has only worsened the situation with a reduction in annual precipitation. In this presentation, I will focus on the effects of region-wide economic policies on the local scale of the Bazyan Basin near Sulaymaniyah in Iraqi Kurdistan where the Kani Shaie Archaeological Project has conducted fieldwork since 2013. This small valley, wedged between the Qara Dagh mountain range and the Baranand hills, forms a major route between the lowlands around the Tigris River and the Zagros Mountains, and specifically connects Kirkuk with Sulaymaniyah. An explosion of industrial facilities and greenhouse farming in the past decade has resulted in a demographic boost that transformed the small village of Bazyan into a rapidly growing town. This has caused tremendous strain on both the environment and the dense archaeological heritage in the valley. I will present preliminary results from archaeological survey that aims to map the archaeological sites threatened by destruction and discuss how the absence of water within the landscape affects our interpretation of ancient land use.